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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,829	04/18/2005	Jean-Ho Song	21C0191US	2222
23413 7590 10/28/2010 CANTOR COLBURN LLP 20 Church Street 22nd Floor Hartford, CT 06103				
EXAMINER NGUYEN, DUNG T				
ART UNIT 2871		PAPER NUMBER		
NOTIFICATION DATE 10/28/2010		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptopatentmail@cantorcolburn.com

Office Action Summary

Application No.

10/531,829

Applicant(s)

SONG ET AL.

Examiner

Dung T. Nguyen

Art Unit

2871

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 15-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 23-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/27/2010 has been entered.

Applicant's amendment dated 04/29/2010 has also been entered. Claims 1-14, 23-29 are pending in the application. Claims 15-22 stand withdrawn from consideration as non-elected claims

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-14 and 23-29 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's submitted prior art, Kim et al. , WO 01/45283, in view of Kikkawa et al., US 6,879,359, and Kurihara et al., US 7,274,424, as stated in the previous final office action.

Regarding the above claims, Kim et al. disclose a liquid crystal display (LCD) device (figures 4-6) comprising:

. a first substrate (11) having a plurality of unit cells (figure 6), each cell including a sensor thin film transistor (TFT) (12), a storage device (14/15/16) and a first switch TFT (13), a

second insulating layer (see figure 5). It is noted that a data reading part and a first gate driving part (fingerprint reading section 100 and control section 400) inherently formed over the first substrate to function/control the sensor TFT and the switch TFT;

- . an LCD panel (3) inherently having a second substrate and a liquid crystal layer attaching to the first substrate (figure 4);
- . a sensor output signal line (output $n/n+1$);
- . a light shielding layer (13-sh)

Kim et al. do not explicitly disclose the LCD panel having first transparent electrode, a second substrate having a second transparent electrode, a color filter and a second switch TFT, wherein the first transparent electrode is in contact with a lower surface of the first substrate and the liquid crystal layer contacts the first transparent electrode. Kikkawa et al. do disclose an LCD (figure 3) having first transparent electrode (34), a second substrate (21) having a second transparent electrode (31), a color filter (30) and a second switch TFT (22/26/27), a first insulating layer (32) between the second transparent electrode (31) and the color filter (30). In addition, a data driver part and a second gate driver part (control section 400) would be formed over the second substrate to control the switch TFT. Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to combine the Kikkawa et al. LCD panel into the Kim et al. fingerprint terminal in order to obtain an LCD device having both a data display function and a fingerprint capture function. In addition, Kurihara et al. do disclose that a first transparent electrode (134) can be formed on a lower substrate of a first substrate (13)(see figure 2); therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Kim et al. substrate (11) having an electrode at a lower surface

of the first substrate as shown by Kurihara et al., in order to obtain a portable device and a weight reduction (see Abstract).

Response to Arguments

3. Applicant's arguments filed 04/29/2010 have been fully considered but they are not persuasive.

Applicant's only argument is that neither Kim nor Kurihara disclose or suggest the common electrode makes contact with the lower surface of the transparent substrate as well as contact to the liquid crystal layer. The Examiner respectfully disagrees with Applicant's viewpoint. In particular, the examiner agrees that the Kurihara et al. common electrode 134 is not *directly* contacted to the lower surface of a substrate 13 as well as not *directly* contacted to the liquid crystal layer 18 (emphasis added); however, such common electrode 134 does form and contact to the based substrate 13 through the protective film 133 and/or the black matrix 131 as well as the common electrode 134 does control and contact to the liquid crystal layer to perform a display function.

Accordingly, the combination of Kim et al., Kikkawa et al. and Kurihara et al. would result a combination display as claimed as well.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung T. Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN
10/25/2010

/Dung T. Nguyen/
Primary Examiner
Art Unit 2871